

Remarks:

Applicant appreciatively acknowledges the Examiner's confirmation of receipt of Applicant's claim for priority and certified priority document under 35 U.S.C. § 119(a)-(d).

Reconsideration of the application, as amended herein, is respectfully requested.

Claims 25 - 56 are presently pending in the application.

Claims 25, 26, 28 - 32, 34 - 42, 44 - 49, 54 and 56 have been amended.

In item 4 of the above-identified Office Action, the specification was objected to as allegedly not including a reference to the prior applications from which the instant application claims priority. Applicant has amended the specification, herein, to make reference to those priority documents. Applicant notes that the Filing Receipt in the instant application acknowledged Applicant's claim of priority to those applications, as such, no petition or fee is believed to be necessary.

In item 6 of the Office Action, the specification was objected to as allegedly being difficult to read. Applicant is submitting, herewith, a copy of the application having a line

spacing of at least 1.5 line spaces, as requested in item 6 of the Office Action.

In item 7 of the Office Action, the specification was objected to for allegedly failing to provide proper antecedent basis for the claimed "virtual environment" of claim 54. Applicant has amended claim 54 to address the concern raised in item 7 of the Office Action. The "virtual environment, as claimed in amended claim 54, is believed to be understandable from, and supported by, the specification, for example, paragraph [0003] of the instant application, which states:

For reasons of cost and efficiency, more and more distributed hardware and/or software systems have recently been used in the business sector, in particular. Such systems can be operated in a virtual environment using the possibilities of "adaptive computing" in which, in a development of conventional systems, adaptation to the requirements of the current application is also possible in the hardware. Software systems which are becoming ever more complex are being operated in an increasingly heterogeneous hardware world. The assignment between software entities and hardware resources is no longer fixed but varies dynamically depending on the current requirements.
[emphasis added by Applicant]

As such, Applicant believes that proper antecedent basis is provided for Applicant's amended claim 54.

In item 8 of the Office Action, claim 25 was objected to on the basis of an informality. Claim 25 has been amended to address the concern raised in item 8 of the Office Action.

In item 9 of the Office Action, the grammar of claim 28 was objected to. Claim 28 has been amended to address the concern raised in item 9 of the Office Action.

In items 10 and 11 of the Office Action, the terminology/format of claims 31 and 32 were objected to, respectively. Claims 31 and 32 have been amended to address the concerns raised in items 10 and 11 of the Office Action.

In items 13 - 15 of the Office Action, claims 29, 30 and 39 were rejected as allegedly being indefinite under 35 U.S.C. § 112, second paragraph. Claims 29, 30 and 39 have been amended to address the concerns raised in items 13 - 15 of the Office Action.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph.

In item 17 of the Office Action, claims 1 - 41 and 44 - 56 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U. S. Patent No. 6,769,024 to Natarajan et al ("NATARAJAN").

In item 50 of the Office Action, claims 42 - 43 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over **NATARAJAN**, in view of U. S. Patent Application Publication No. 2003/0033400 to Pawar et al ("PAWAR").

Applicant respectfully traverses the above rejections.

Claims 1 - 24, rejected in items 17 and 18 of the instant Office Action, were previously canceled from the application. Additionally, the reasons for the rejection of claim 25 were not particularly set out in the Office Action. However, Applicant will address the rejection in item 18 of claim 1 (not pending at the time of the Office Action), as though it applied to Applicant's sole pending independent claim, claim 25.

Applicant's invention is directed to a system for distributed computing (i.e., "adaptive computing"). See, for example, Applicant's previously presented preamble to claim 25 ("A method for **managing and monitoring an operation of a plurality of distributed hardware and/or software systems . . .**").

In distributed or "adaptive" computing, the assignment between software entities and hardware resources is no longer fixed, but rather, varies dynamically depending on the current system

requirements. See, for example, paragraph [0003] of the published application. However, it is not possible to manage and monitor such distributed hardware environments using the conventional tools and monitoring tools, which presuppose a fixed assignment between hardware and software. See, for example, paragraph [0004] of the published application.

Applicant's invention addresses the problems of managing a distributed hardware system by utilizing a central program having specific capabilities not found in the prior art.

To better emphasize the distributed computing nature of the system of the present invention, Applicant has amended claim 25 to recite, among other limitations:

A method for managing and monitoring an operation of a plurality of distributed hardware and/or software systems that are integrated into at least one communications network, **the plurality of distributed systems being responsible for providing a plurality of different services**, the method which comprises:

operating the plurality of distributed systems in a distributed manner, with the plurality of different services being respectively implemented by different autonomous individual systems, **none of the plurality of different services being fixedly assigned to any of the different autonomous individual systems**, but rather, **the assignment of each of the different services to a particular one of the different autonomous individual systems changing dynamically during the provision of the respective service**;

[emphasis added by Applicant]

As such, Applicant's claims require, among other things, **that the plurality of distributed systems are operated in a**

distributed manner, such that the different services provided by the plurality of distributed systems are implemented in different autonomous individual systems, with none of the different services being fixedly assigned to any of the different autonomous individual systems, but rather, such assignments changing dynamically during provision of the service. The amendments to claim 25 are supported by the specification of the instant application, for example, by paragraph [0034] of the published application, which states:

The systems A-D are responsible for different services a-1. These services may comprise, for example, interactive or batch processing, accounting, printing, messaging and web services. The systems are operated in a distributed manner, with the result that the services associated with a system are respectively implemented in different autonomous individual systems. In the case illustrated, these individual systems are autonomous hardware systems 1-5 which are composed of heterogeneous hardware components. Each system is provided with individual hardware and an operating system (not illustrated here). The services a and d of the system A run on the autonomous individual system 1 and the service d is simultaneously also operated in the individual system 3, while a further service e of the system A is located in the individual system 4. This assignment of the services of the systems A-D to the individual systems 1-5 varies dynamically depending on the current requirements of the overall system environment. There is no fixed assignment between the application and the hardware resources. For example, the service j, which belongs to the application system D and is initially running on the autonomous individual system 3, is changed over to operation in the autonomous individual system 5. [emphasis added by Applicant]

In contrast to Applicant's currently claimed invention, the **NATARAJAN** reference does not teach or suggest, among other limitations, Applicant's particularly claimed distributed system, wherein services provided by certain of the distributed systems **are implemented by autonomous individual systems in a distributed manner**, with the assignment of a service to an autonomous individual system **changing dynamically** during provision of the service.

Rather, **NATARAJAN**, discloses a dynamically adaptive network element in a feedback-based data network wherein at least a portion of the network elements report operating information relating to network conditions to a centralized data store. See, for example, the Abstract of **NATARAJAN**. Col. 6 of **NATARAJAN**, lines 28 - 40, state:

Using the technique of the present invention, a dynamic feedback-based adaptive network may **be provided for automatically detecting a client's need for increased bandwidth, and for automatically and dynamically reconfiguring the appropriate network elements to provide sufficient bandwidth on the virtual circuit to support the user's current application(s)**. The feedback-based adaptive network of the present invention monitors current conditions of local and/or remote network elements and dynamically adjusts network control parameters based upon analysis of the monitored network elements. A specific embodiment of the dynamically configurable feedback-based adaptive network of the present invention is shown in FIG. 2 of the drawings. [emphasis added by Applicant]

As such, **NATARAJAN** discloses a system for automatically and dynamically reconfiguring the appropriate network elements to provide sufficient bandwidth on the virtual circuit to support the user's current application(s). However, **NATARAJAN** does not teach or suggest, dynamically reassigning the applications for performing different services to different autonomous individual systems during operation, as required by Applicant's amended claims. Rather, **NATARAJAN** describes changing a "virtual circuit" to affect operational parameters of the network elements, wherein, upon receiving the updated control information, the network element re-configures itself using the updated control information to improve its own operational parameters. See, for example, col. 7 of **NATARAJAN**, lines 60 - 67, stating:

As described in greater detail below, there are a number of ways in which the updated control information may be fed back into the network element. Once received, the network element will automatically configure itself utilizing the updated control information to thereby affect its operation, which may include affecting one or more operational parameters of the network elements. [emphasis added by Applicant]

As can be seen from the foregoing, **NATARAJAN** does not teach or suggest, among other limitations of Applicant's claims, a method of performing distributed or "adaptive" computing wherein the assignment of the particular entity running a

particular service is dynamically changed during provision of the service, as required by Applicant's claims.

For the foregoing reasons, among others, Applicant's claims are believed to be patentable over the **NATARAJAN** reference. The **PAWAR** reference, cited in the office Action in combination with **NATARAJAN** against certain of Applicant's dependent claims, does not cure the above-discussed deficiencies of the **NATARAJAN** reference.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claim 25. Claim 25 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 25.

In view of the foregoing, reconsideration and allowance of claims 25 - 56 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Applic. No. 10/591,790
Response Dated January 14, 2009
Responsive to Office Action of September 15, 2008

Additionally, please consider the present as a petition for a one (1) month extension of time, and please provide a one (1) month extension of time, to and including, January 15, 2009, to respond to the present Office Action.

The extension fee for response within a period of one (1) month pursuant to Section 1.136(a) in the amount of \$130.00 in accordance with Section 1.17 is enclosed herewith.

Please provide any additional extensions of time that may be necessary and charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemmer LLP, No. 12-1099.

Respectfully submitted,

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For Applicant

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